

Therefore, the Applicants respectfully request that the Examiner accept the proposed drawing changes, and reconsider and withdraw these objections to the drawings.

Rejections Under 35 USC § 102

The Examiner rejected Claim 1 under 35 USC §102(b) as being anticipated by Kitamura et al. The Applicants have amended Claim 1 to include the limitations of dependant Claims 2-6 according to the Examiner's suggestion. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §102(b).

Rejections Under 35 USC § 103

The Examiner rejected Claims 2-5 and 10 under 35 USC §103 as being unpatentable over Kitamura et al. in view of Ragaly. The Applicants have amended Claim 1 to include the limitations of dependant Claims 2-6 and have cancelled Claims 2-6. The Applicants assert that Claim 1 as amended is allowable, and that Claim 10 is also allowable as depending from allowable Claim 1. Therefore, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections under §103.

Allowable Subject Matter

Applicants gratefully acknowledge the indication by the Examiner of allowable subject matter in Claims 6-9 and 11-13. The Applicants discovered an error in Claim 13, and have amended Claim 13 to depend from Claim 11 and not from Claim 1.

SUMMARY

The Applicants assert that pending Claims 1, and 7-13 as amended are patentable. Applicants respectfully request the Examiner grant early allowance of these claims. The Examiner is invited to contact the undersigned attorneys for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,

Dated: January 21, 2003

By: 

Steven L. Oberholtzer
Registration No. 30,670
Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, IL 60610
Telephone: (734) 302-6000

APPENDIX A

1. (AMENDED) An alternator comprising:

an inner housing; and

an outer housing mounted over said inner housing;

said inner housing and said outer housing defining a flow chamber including a disk shaped first plenum extending diametrically across said alternator, an axial jacket extending annularly around said inner housing of said alternator, [and] a disk shaped second plenum extending diametrically across said alternator; an inlet extending from said first plenum adapted to allow coolant to enter said first plenum, and an outlet extending from said second plenum adapted to allow coolant to exit said flow chamber, said inlet and said outlet being adapted to connect to a coolant system of an automobile such that engine coolant is circulated through said alternator;

said first plenum being defined by opposing first and second disk shaped portions of said inner housing such that said first plenum is a disk shaped cavity extending diametrically across said alternator adjacent a rear end of said alternator,

said second plenum being defined by a third disk shaped portion of said inner housing and a disk shaped front portion of said outer housing such that said second plenum is a disk shaped cavity extending diametrically across said alternator adjacent a front end of said alternator;

said axial jacket being defined by an inner diameter of said outer housing and an outer diameter of said inner housing such that said axial jacket forms an annular jacket extending substantially around said alternator, said axial jacket being disposed between

and interconnecting said first plenum and said second plenum such that said first plenum, said axial jacket, and said second plenum are in fluid communication with one another; and

said first disk shaped portion including an arcuate notch formed therein defining a first passageway that interconnects said first plenum and said axial jacket and said third disk shaped portion including an arcuate notch formed therein defining a second passageway that interconnects said axial jacket and said second plenum.

7. (AMENDED) The alternator of claim [6] 1 wherein said first passageway is located diametrically across from said inlet such that coolant entering said first plenum must flow diametrically across said alternator to reach said first passageway.

11. (AMENDED) An alternator comprising:

an inner housing;

an outer housing mounted over said inner housing;

said inner housing and said outer housing defining a sealed flow chamber having a first plenum, an axial jacket, a second plenum, a first passageway interconnecting said first plenum and said axial jacket, a second passageway interconnecting said axial jacket and said second plenum, an inlet extending from said first plenum, and an outlet extending from said second plenum;

said first plenum being defined by opposing first and second disk shaped portions of said inner housing such that said first plenum is a disk shaped cavity extending diametrically across said alternator adjacent a rear end of said alternator,

said axial jacket being defined by an inner diameter of said outer housing and an outer diameter of said inner housing such that said axial jacket forms an annular jacket extending substantially around said inner housing of said alternator between and interconnecting said first and second plenums,

said second plenum being defined by a third disk shaped portion of said inner housing and a disk shaped front portion of said outer housing such that said second plenum is a disk shaped cavity extending diametrically across said alternator adjacent a front end of said alternator;

said first passageway being defined by an arcuate notch formed within said first disk shaped portion of said inner housing diametrically across from said inlet such that coolant entering said first plenum must flow diametrically across said alternator to reach said first passageway, and said second passageway being defined by an arcuate notch formed within said third disk shaped portion of said inner housing diametrically across from said first passageway such that coolant entering said axial jacket through said first passageway must flow annularly around said alternator to reach said second passageway;

said outlet being located diametrically across from said second passageway such that coolant entering said second plenum through said second passageway must flow diametrically across said alternator to reach said outlet.

13. (AMENDED) The alternator of claim [1] 11 further comprising:

a shaft rotatably supported within said inner housing by a pair of bearing elements, having a pulley mounted to a first end and a pair of slip rings mounted to a second end;

a rotor assembly including first and second pole pieces mounted onto said shaft with an excitation winding mounted between said first and second pole pieces;

a stator assembly fixedly mounted within said inner housing in functional engagement with said rotor assembly.